

CLAIMS

What is claimed is:

1. A method for allowing multiple applications to cooperatively
5 access a resource, said method comprising the steps of:

a) registering a callback instruction for a first application using said
resource;

b) invoking said callback instruction to notify said first application of a
request from a second application for said resource; and

10 c) yielding said resource to said second application provided said first
application grants said request.

2. The method as recited in Claim 1 wherein said resource
comprises interface circuitry coupled to multiple ports.

15 3. The method as recited in Claim 1 further comprising the step of:
registering said first application as a passive application, wherein a
passive application defines said callback instruction.

20 4. The method as recited in Claim 1 wherein said step b) is
performed responsive to said request from said second application.

5. The method as recited in Claim 1 further comprising the step of:
providing notice to said first application that said second application is
25 finished using said resource, said notice indicating said resource is available.

6. The method as recited in Claim 1 wherein said step c) further comprises the steps of:

c1) closing said resource for said first application; and

5 c2) conducting procedures for shutting down said first application.

7. The method as recited in Claim 1 wherein a response granting said request is a Boolean true, and wherein a response denying said request is a Boolean false.

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8. A method for allowing multiple applications to cooperatively access a serial port, said method comprising the steps of:

a) opening said serial port for a first application, wherein said step of opening comprises registering a callback instruction for said first application;

15 b) receiving a request for said serial port from a second application;

c) invoking said callback instruction responsive to said request, wherein said step of invoking comprises the steps of:

c1) sending notice to said first application of said request; and

c2) receiving from said first application a response to said notice;

20 and

d) yielding said serial port to said second application provided said response from said first application grants said request and otherwise maintaining said serial port for said first application.

9. The method as recited in Claim 8 further comprising the step of:
registering said first application as a passive application.

10. The method as recited in Claim 8 wherein said step d) further
5 comprises the step of:
receiving from said first application a response denying said request.

11. The method as recited in Claim 8 wherein said step d) further
comprises the step of:

10 returning an error message to said second application when said serial
port is not yielded to said second application.

12. The method as recited in Claim 8 further comprising the step of:
providing notice to said first application that said second application is
15 finished using said serial port, said notice indicating said serial port is available.

13. The method as recited in Claim 8 wherein said step c) further
comprises the steps of:

c3) closing said serial port for said first application; and
20 c4) conducting procedures for shutting down said first application.

14. The method as recited in Claim 8 wherein a response granting
said request is a Boolean true, and wherein a response denying said request is
a Boolean false.

15. A portable computer system comprising:

a bus;

a serial port coupled to said bus;

5 a processor coupled to said bus; and

a memory coupled to said bus, said memory comprising instructions for implementing a method for allowing multiple applications residing on said computer system to cooperatively access said serial port, said method comprising the steps of:

10 a) opening said serial port for a first application, wherein said step of opening comprises registering a callback instruction for said first application;

b) receiving a request for said serial port from a second application;

c) invoking said callback instruction responsive to said request, wherein said step of invoking comprises the steps of:

15 c1) sending notice to said first application of said request; and

c2) receiving from said first application a response to said notice;

and

d) yielding said serial port to said second application provided said response from said first application grants said request and otherwise

20 maintaining said serial port for said first application.

16. The computer system of Claim 15 wherein said method further comprises the step of:

registering said first application as a passive application.

17. The computer system of Claim 15 wherein said step d) of said method further comprises the step of:

receiving from said first application a response denying said request.

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18. The computer system of Claim 15 wherein said step d) of said method further comprises the step of:

returning an error message to said second application when said serial port is not yielded to said second application.

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19. The computer system of Claim 15 wherein said method further comprises the step of:

providing notice to said first application that said second application is finished using said serial port, said notice indicating said serial port is available.

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20. The computer system of Claim 15 wherein said step c) of said method further comprises the steps of:

c3) closing said serial port for said first application; and

c4) conducting procedures for shutting down said first application.

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21. The computer system of Claim 15 wherein a response granting said request is a Boolean true, and wherein a response denying said request is a Boolean false.